



# Semi-analytic conjugate gradient method applied to a simple inverse heat conduction problem

Submitted by Jean-Claude Jolly on Mon, 02/06/2017 - 15:16

Titre	Semi-analytic conjugate gradient method applied to a simple inverse heat conduction problem
Type de publication	Communication
Type	Communication avec actes dans un congrès
Année	2016
Langue	Anglais
Date du colloque	13-15/06/2016
Titre du colloque	2nd IFAC Workshop on control of systems governed by partial differential equations
Auteur	Jolly, Jean-Claude [1], Autrique, Laurent [2]
Pays	Italie
Ville	Bertinoro
Mots-clés	Conjugate gradient method [3], Filtering [4], Inverse heat conduction problem [5] On the most simple 1-D heat equation, a simple identification problem of heatux on one side from temperature measurement on the other side is solved with a conjugate gradient method (CGM). What is new in this well known and academic problem is that theCGM can be developped explicitly. This means that the CGM is given with explicit formulae into an approximation space split between a polynomial part and an exponential part. A filtering property of the CGM is deduced. These results correct and deepen the work of previous authors.
Résumé en anglais	
URL de la notice	<a href="http://okina.univ-angers.fr/publications/ua15580">http://okina.univ-angers.fr/publications/ua15580</a> [6]
Lien vers le document en ligne	<a href="http://www.cpde2016.org/">http://www.cpde2016.org/</a> [7]

## Liens

- [1] <http://okina.univ-angers.fr/jeanclaude.jolly/publications>
- [2] <http://okina.univ-angers.fr/l.autrique/publications>
- [3] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=20717>
- [4] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=3400>
- [5] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=22305>
- [6] <http://okina.univ-angers.fr/publications/ua15580>
- [7] <http://www.cpde2016.org/>

Publié sur *Okina* (<http://okina.univ-angers.fr>)